

## Diabetes and Food



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Contrary to popular belief, healthy eating for people with diabetes is no different from anyone else. However, for most people, having diabetes means that it is even more important to choose a diet that emphasizes vegetables, lean protein and moderate fruit and wholegrain intake. A diet low in fat, especially saturated fat, high in fibre, with limited salt and sugar intake will help decrease the risk of becoming overweight, developing atherosclerotic disease and improve blood sugar level control.

What has changed in recent years is that now people with diabetes are encouraged to choose carbohydrate foods on the basis of their glycaemic index and not on the previous rationale of whether they were simple or complex carbohydrates.

So what is this glycaemic index (GI)? It is a method of ranking foods according to their effect on the blood glucose level. So practically speaking it is a reading of how quickly that food is turned into sugar in the bloodstream. The lower the GI factor of the food the less effect that food has on raising blood sugar levels and gives insulin more time to act. This is obviously very important to those suffering from diabetes. Foods are tested and compared to the standard food glucose. The GI of glucose is set at 100 and the food tested is given a ranking compared to this. For example, calrose rice and jelly beans turn into sugar quickly in the blood stream and have a high ranking GI score of >70. Foods like white bread and pineapple are moderate and have a GI of 55-70.

Low GI carbohydrates are digested and absorbed more slowly, thus causing a more gradual rise in blood glucose. Factors contributing to the low GI nature of a particular food include the structure of the starch, the type of fibre, the presence of fat, protein or acid in the food, as well as the degree of processing the food has undergone.

So how are these facts useful to someone with diabetes? If a person on a healthy diet for diabetes eats more low GI foods per meal than high GI foods their blood glucose levels will be more easily controlled at a lower level. There is also an improvement in glycosylated haemoglobin (HbA1C) values. Regular home blood glucose monitoring can assess the effect of any changes made.

The good practical uses of the glycaemic index can help in many simple ways. It can help explain previously confusing fluctuations of blood sugar levels relating to having eaten high GI foods, like rice bubbles and white bread compared to the lower GI foods of porridge and burgen bread.

Improvement in glycaemic control can be achieved with relatively painless changes to the diet such as using basmati rice with a low GI level instead of calrose rice with a high GI factor.

Weight management is easier when using low GI foods as not only are you fuller for longer after eating them compared to the high GI alternatives but the lower blood sugar levels equate to less conversion of sugar into fat for storage.

To help maintain blood glucose levels through the night, low GI foods should be chosen at supper time. These slower sugar releasing foods are also more preferable for meals prior to sporting events, compared to needing faster energy releasing or high GI foods and drinks during the event.

If you are already eating low GI foods but still having problems controlling your blood sugar levels, it may help to look at your portion sizes and eat smaller meals more frequently, with the carbohydrate portion more evenly distributed throughout the day.

This dietary advice for diabetes using the glycaemic index principle allows the focus to be shifted away from the emphasis on “no sugar” to be placed on “low saturated fat” which has greater consequences long term. The greatest health problems faced by those with type 2 diabetes are obesity, ischaemic heart disease and peripheral vascular disease. A diet low in saturated fat combined with good glycaemic control and regular exercise can help reduce the development of these conditions.



Published January 2008

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